

REMARKS

Claims 2-5 and 7-16 are now in this application. Claims 1, 6, 7, 9 and 11 are rejected. Claims 2-5, 8 and 10 are objected to. Claims 1 and 6 are cancelled. Claims 2, 3, 7, 8, 9 and 11 are amended herein to clarify the invention and to address matter of form unrelated to substantive patentability issues. New claims 12-16 are added. For the convenience of the Examiner, APPENDIX I is provided herewith having a complete set of pending claims with all amendments effected therein.

The abstract is objected to on the basis that it is not directed to the claimed invention. A replacement abstract is provided herein on a separate page which is directed to a component mounter. It is submitted that the replacement abstract is in full conformance with 37 CFR 1.72 and MPEP 608.01(b). Therefore, reconsideration of the objection to the abstract is respectfully requested.

The drawings are objected to. The Office Action states that the legend "Prior Art" is required on Fig. 6 to clarify the invention. A replacement drawing sheet of Fig. 6 accompanies this amendment wherein the legend "Prior Art" is added.

Claims 1, 6, 7, 9 and 11 are rejected as obvious over ** in view of ** under 35 U.S.C. §103(a). The applicant herein respectfully traverses this rejection. For a rejection under 35 U.S.C. §103(a) to be sustained, the differences between the features of the combined references and the present invention must be obvious to one skilled in the art.

Claims 1 and 6 are cancelled. It is respectfully submitted that a *prima facie* case of obviousness has not been established in the rejection of claims 7, 9 and 11. "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP §706.02(j) "Contents of a 35 U.S.C. §103 Rejection".

With regard to claim 7, the Office Action states that the APA in Fig. 7 shows a mounting plate 9a for a motor driver. However, claim 7 requires that

the mounting is “arranged in parallel to the axis of rotation of the annular driver.” In Fig. 7 it is clear that the mounting plate 9a is arranged at a right angle to an axis of rotation. Accordingly, the APA cannot be relied upon to establish this element of the claimed invention. Claim 7 is now presented in independent form with claims 9, 10, 15 and 16 dependent therefrom either directly or indirectly.

Thus, it is respectfully submitted that the rejected claims are not obvious in view of the cited references for the reasons stated above. Reconsideration of the rejections of claims 7, 9, 10 and 11 and their allowance are respectfully requested.

Claims 2-5, 8 and 10 are objected to as being dependent from rejected base claims. The Examiner indicates that the claims contain allowable subject matter and would be allowed if put in independent form incorporating the limitations of the base and intervening claims. The claims 2, 3 and 8 are amended in accordance with the Examiner's suggestion. claim 10 is dependent from claim 7 submitted as patentable above. Reconsideration of the objection and allowance of the claims are respectfully requested.

Dependent claims 12-16 are added and are submitted as patentable over the cited art of record and are submitted as patentable based on the subject

matter cited therein in addition to the subject matter of their respective base claims.


One further independent claims in excess of three is/are added.

Accordingly, please charge the fee of \$86.00 to Deposit Account No. 10-1250.


Applicant respectfully requests a one month extension of time for responding to the Office Action. Please charge the fee of \$110.00 for the extension of time to Deposit Account No. 10-1250.

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited. Please charge any deficiency or credit any overpayment to Deposit Account No. 10-1250.

Respectfully submitted,
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APPENDIX I

ALL PENDING CLAIMS WITH AMENDMENTS EFFECTED THEREIN

1. (Cancelled)

2. (Currently Amended) A component mounting apparatus comprising:

a rotary table driven to rotate intermittently;

a plurality of mounting heads disposed on a peripheral surface of the rotary table;

a plurality of motors respectively provided in each of the plurality of mounting heads;

an annular driver having an axis of rotation coaxial with the rotary table including a plurality of motor drivers respectively connected to each of the plurality of motors; and

a controller placed in a stationary part of the apparatus for inputting drive power and control signals to the annular driver,

wherein the annular driver includes a plurality of motor driver mounting plates for attaching the motor drivers, arranged in parallel to the axis of rotation of the annular driver and spaced apart from each other.

3. (Currently Amended) A component mounting apparatus comprising:

a rotary table driven to rotate intermittently;

a plurality of mounting heads disposed on a peripheral surface of the rotary table;

a plurality of motors respectively provided in each of the plurality of mounting heads;

an annular driver having an axis of rotation coaxial with the rotary table including a plurality of motor drivers respectively connected to each of the plurality of motors; and

a controller placed in a stationary part of the apparatus for inputting drive power and control signals to the annular driver,

wherein the annular driver includes a plurality of motor driver mounting plates for attaching the motor drivers, are arranged radially with respect to the axis of rotation of the annular driver.

4. (Original) The component mounting apparatus according to Claim 3, wherein each of the plurality of motor driver mounting plates includes a notch at an inner peripheral side edge thereof and a fastening member at an outer peripheral side edge thereof.

5. (Original) The component mounting apparatus according to Claim 2, further comprising a display connected to the controller, wherein the controller stops operation of the component mounting apparatus upon detecting a malfunction in any one of the plurality of motor drivers, reports the malfunction through the display, and drives the rotary table to cause the malfunctioning motor driver to a predetermined maintenance position.

6. (Cancel)

7. (Currently Amended) A component mounting apparatus comprising:
a rotary table driven to rotate;
at least one mounting head disposed on a peripheral surface of the rotary table;

at least one motor respectively provided in said at least one mounting head;

an annular driver, having an axis of rotation coaxial with the rotary table, including at least one motor driver respectively connected to said at least one motor; and

a controller for inputting drive power and control signals to the annular driver,

wherein the annular driver includes at least one motor driver mounting plate for attaching the at least one motor driver, said at least one motor driver mounting plate being arranged in parallel to the axis of rotation of the annular driver.

8. (Currently Amended) A component mounting apparatus comprising:

a rotary table driven to rotate;

at least one mounting head disposed on a peripheral surface of the rotary table;

at least one motor respectively provided in said at least one mounting head;

an annular driver, having an axis of rotation coaxial with the rotary table, including at least one motor driver respectively connected to said at least one motor; and

a controller for inputting drive power and control signals to the annular driver,

wherein the annular driver includes at least one motor driver mounting plate for attaching the at least one motor driver, said at least one motor driver mounting plate being arranged in parallel to the axis of rotation of the annular driver, and the at least one motor driver mounting plate includes at least one notch

at an inner peripheral side edge thereof for receiving a locator pin engaged with a plate of said annular driver, and a fastening member at an outer peripheral side edge of the at least one motor driver mounting plate for mounting the at least one motor driver mounting plate.

9. (Currently Amended) The component mounting apparatus according to Claim 7, wherein the at least one motor driver mounting plate for attaching the at least one motor driver is arranged to extend radially with respect to the axis of rotation of the annular driver.

10. (Previously Presented) The component mounting apparatus according to Claim 9, wherein the at least one motor driver mounting plate includes at least one notch at an inner peripheral side edge thereof for receiving a locator pin engaged with a plate of said annular driver, and a fastening member at an outer peripheral side edge of the at least one motor driver mounting plate for mounting the at least one motor driver mounting plate.

11. (Currently Amended) The component mounting apparatus according to Claim 8, further comprising a display connected to the controller, wherein the controller stops operation of the component mounting apparatus upon detecting a malfunction in any one of said at least one motor driver, reports the malfunction through the display, and drives the rotary table to move the malfunctioning motor driver to a predetermined maintenance position.

12. (New) The component mounting apparatus according to Claim 3,

wherein the plurality of motor driver mounting plates for attaching the motor drivers are arranged in parallel to the axis of rotation of the annular driver and spaced apart from each other.

13. (New) The component mounting apparatus according to Claim 3, further comprising a display connected to the controller, wherein the controller stops operation of the component mounting apparatus upon detecting a malfunction in any one of the plurality of motor drivers, reports the malfunction through the display, and drives the rotary table to cause the malfunctioning motor driver to a predetermined maintenance position.

14. (New) The component mounting apparatus according to Claim 13, wherein the plurality of motor driver mounting plates for attaching the motor drivers are arranged in parallel to the axis of rotation of the annular driver and spaced apart from each other.

15. (New) The component mounting apparatus according to Claim 9, further comprising a display connected to the controller, wherein the controller stops operation of the component mounting apparatus upon detecting a malfunction in any one of said at least one motor driver, reports the malfunction through the display, and drives the rotary table to move the malfunctioning motor driver to a predetermined maintenance position.

16. (New) The component mounting apparatus according to Claim 15, wherein the at least one motor driver mounting plate includes at least one notch at an inner peripheral side edge thereof for receiving a locator pin engaged with a plate of said annular driver, and a fastening member at an outer peripheral side

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edge of the at least one motor driver mounting plate for mounting the at least one motor driver mounting plate.



Fig. 6

PRIOR ART

